

VideometerLab for
textile analysis

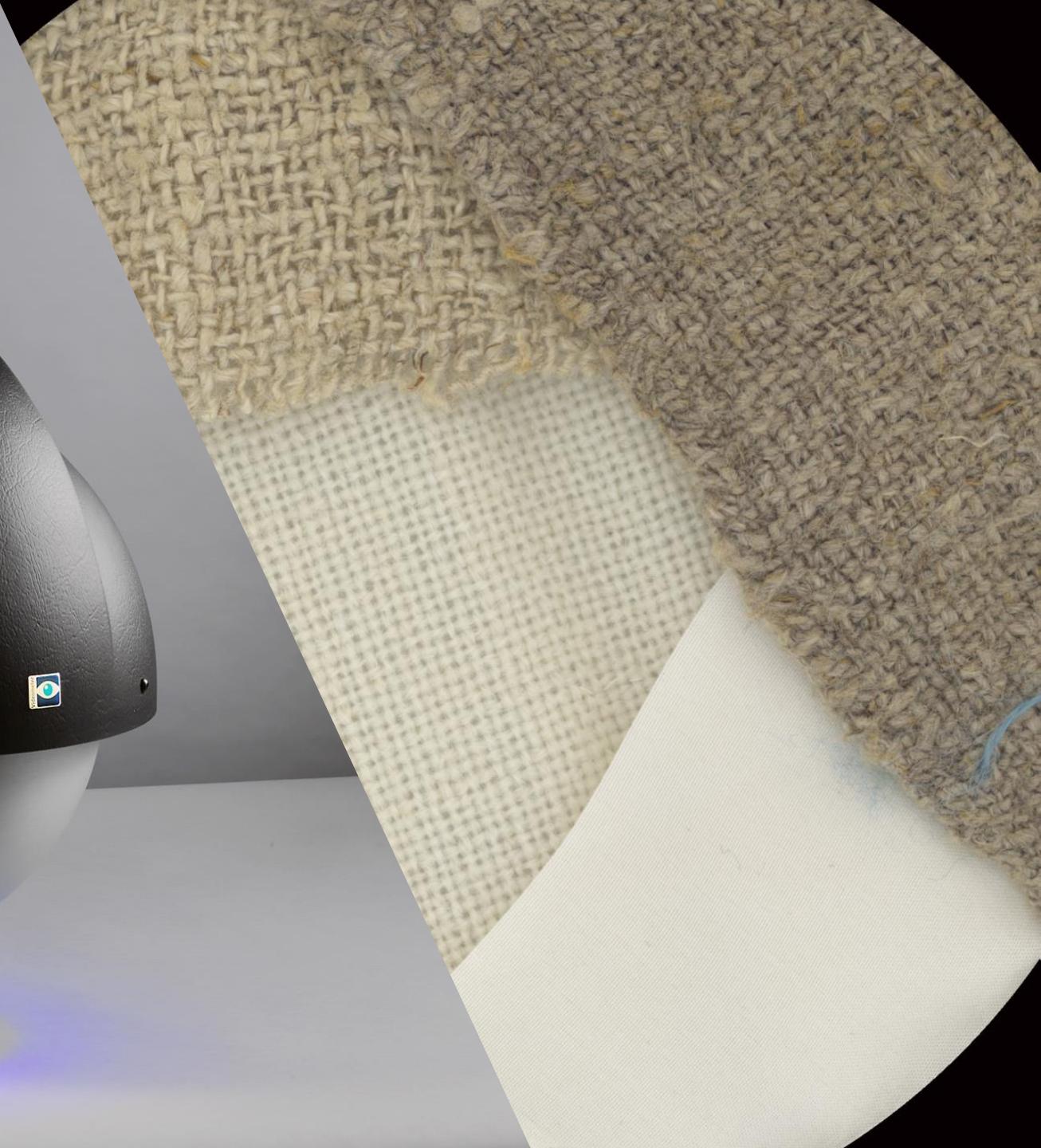
Videometer A/S

Horkaer 12B, 3. floor

DK-2730 Herlev, Denmark

www.videometer.com

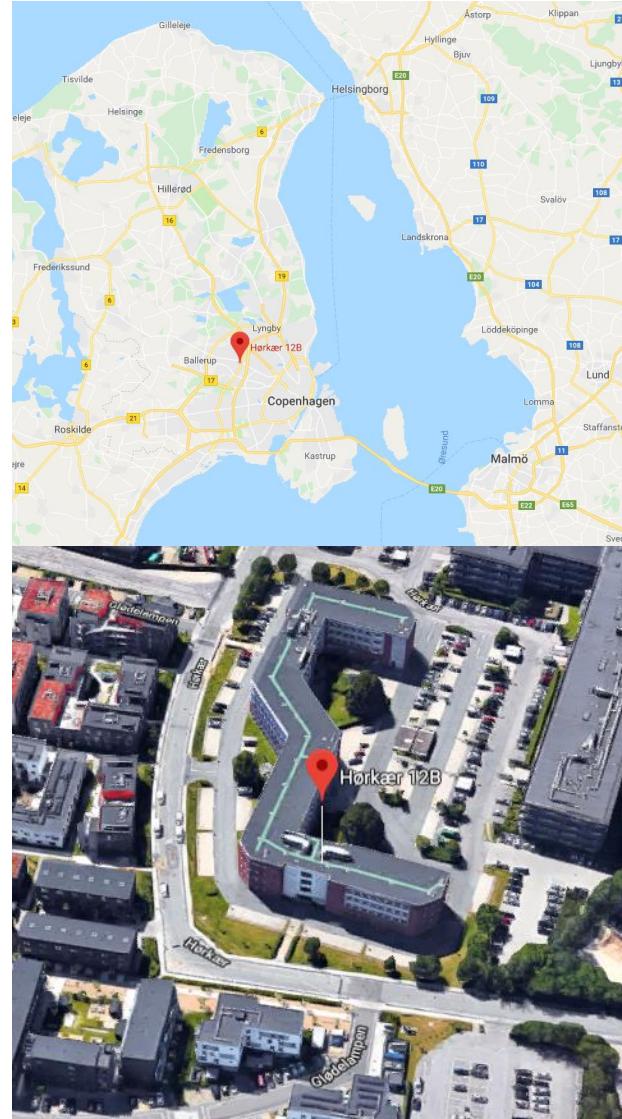
mail@videometer.com



Videometer A/S



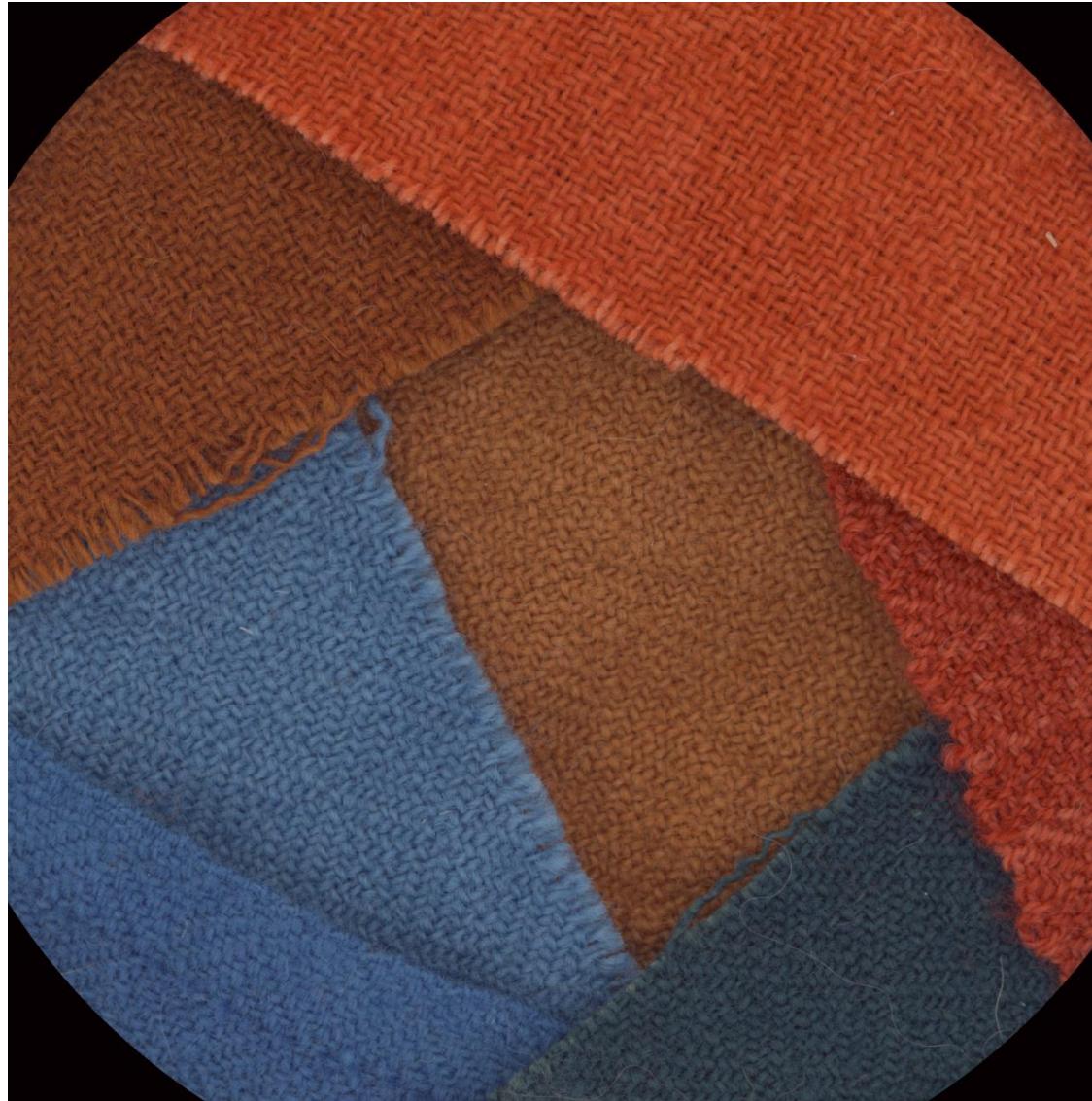
- Spectral imaging company
- Founded 1999
- Products
 - Lab instruments,
 - Turn-key in-line systems, and
 - R&D projects
- App. 640 imaging R&D projects since 2000
- In-line 24/7 spectral imaging since 2002
- Based in Copenhagen, Denmark
- Partnerships worldwide



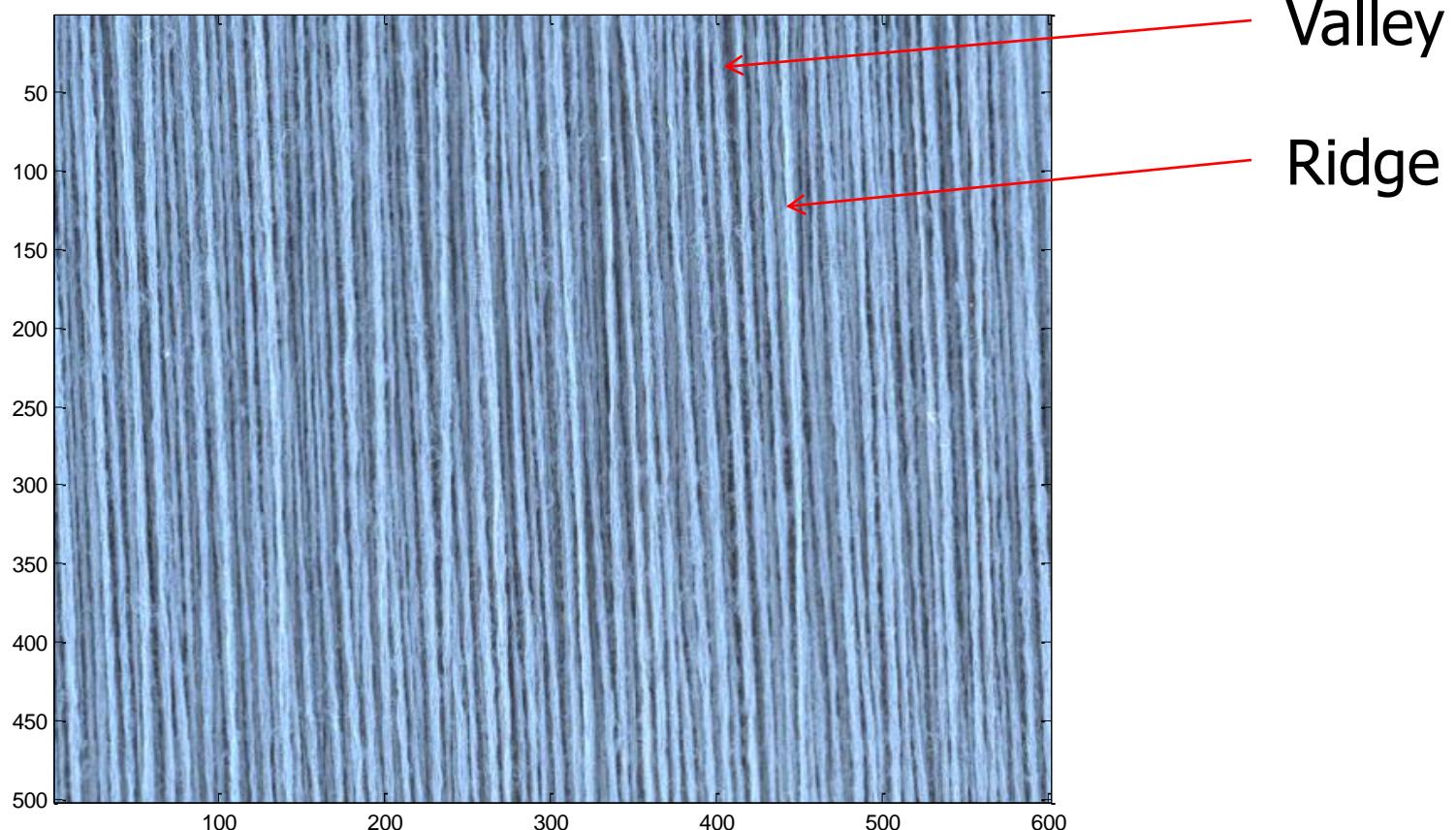
Raw materials



Dyeing process

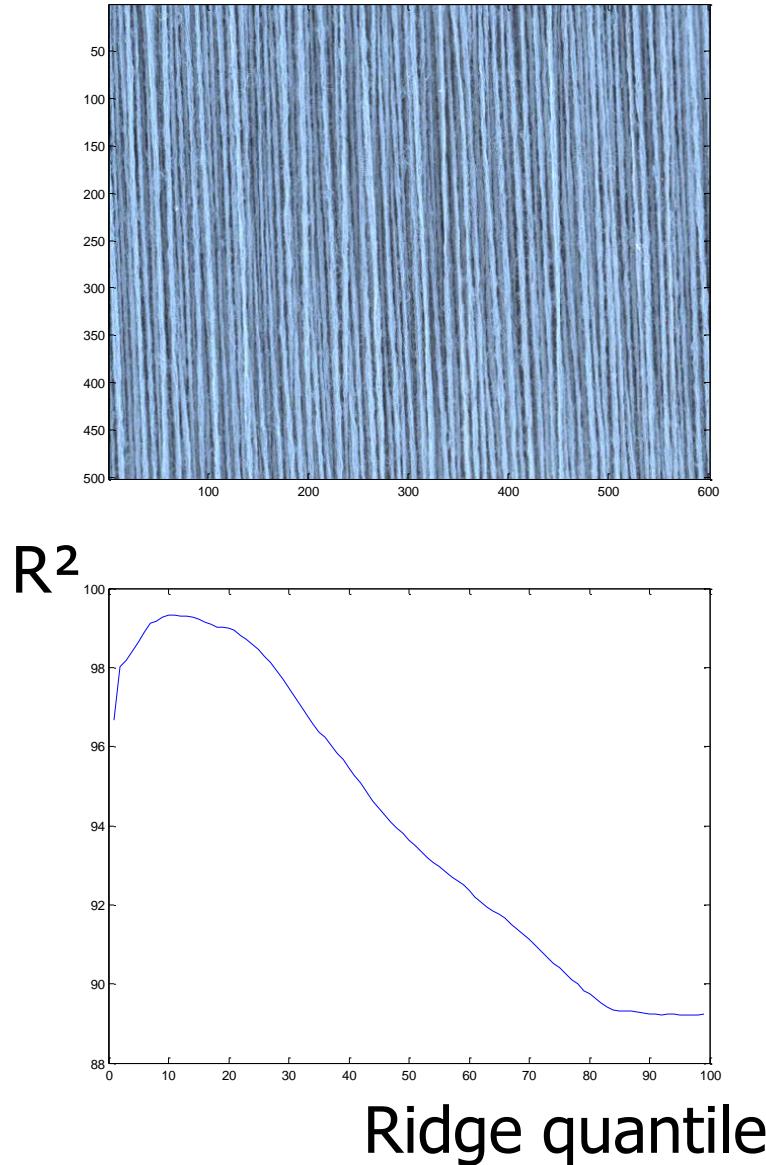


Yarn and fabric color



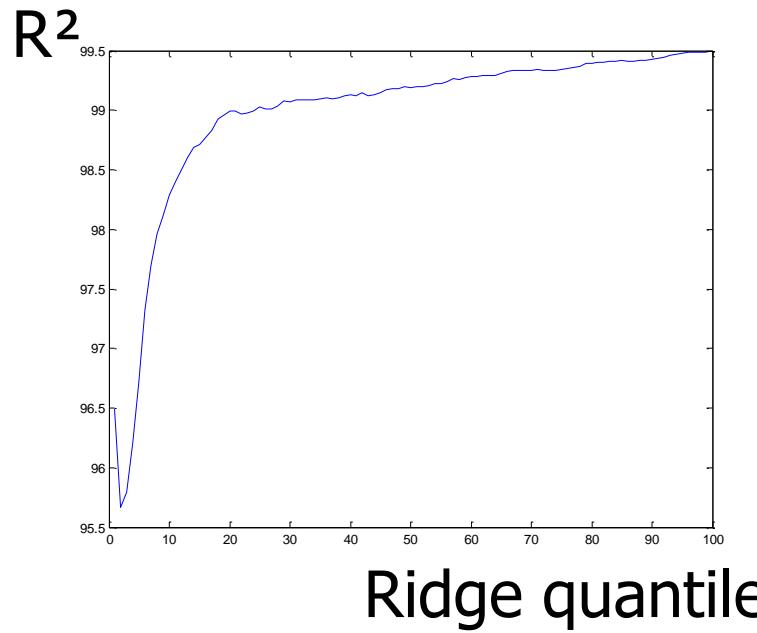
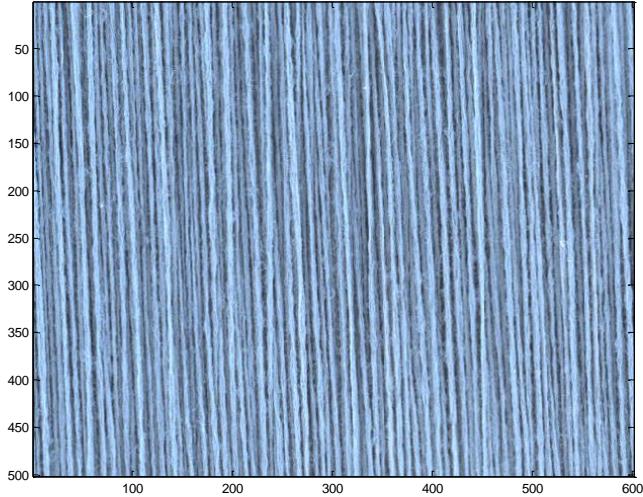
Yarn color is **NOT** the average color

Ridge-weighted color measurement



- Dose-response trial
- Color strength (L^*)
- Dose-explained variation
- $R^2=99.34\%$ for ridge-quantile 13%
- $R^2=87.3\%$ for conventional color measurement

Ridge-weighted color measurement



- Dose-response trial
- Color nuance (a^*, b^*)
- Dose-explained variation
- $R^2=99.49\%$ for ridge-quantile
97%
- $R^2=94.9\%$ for conventional color measurement

Abrasion and backstain on denim



Dominating yarn loop segmentation



Denim measurements

Abrasion

- Front dominant loops
- Three quantities:
 - Average abrasion
 - Abrasion graininess
 - Abrasion speckle

Backstain

- Back dominant loops
- One quantity:
 - Average backstain

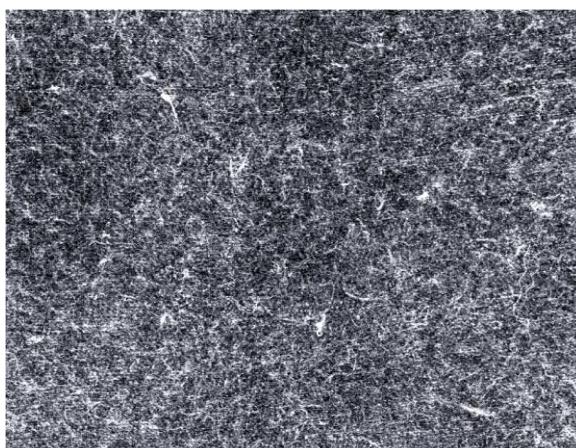
Sorting of mink pelts

- Color and purity
- Before: highly skilled sorters educated for 4 years
- Today: 8 lines using spectral imaging
- High reproduceability
- High accuracy
- Robust and fast ROI

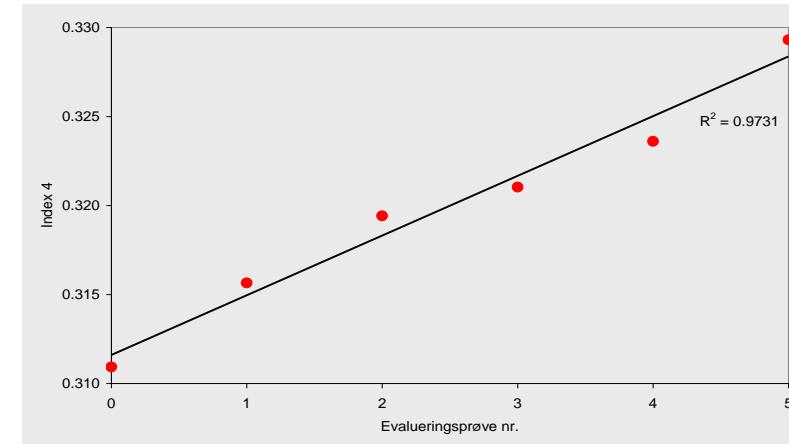


Fuzz and Pills / Biofinishing

The amount of "Fuzz and pills" can be measured by a linear combination of two wavelengths

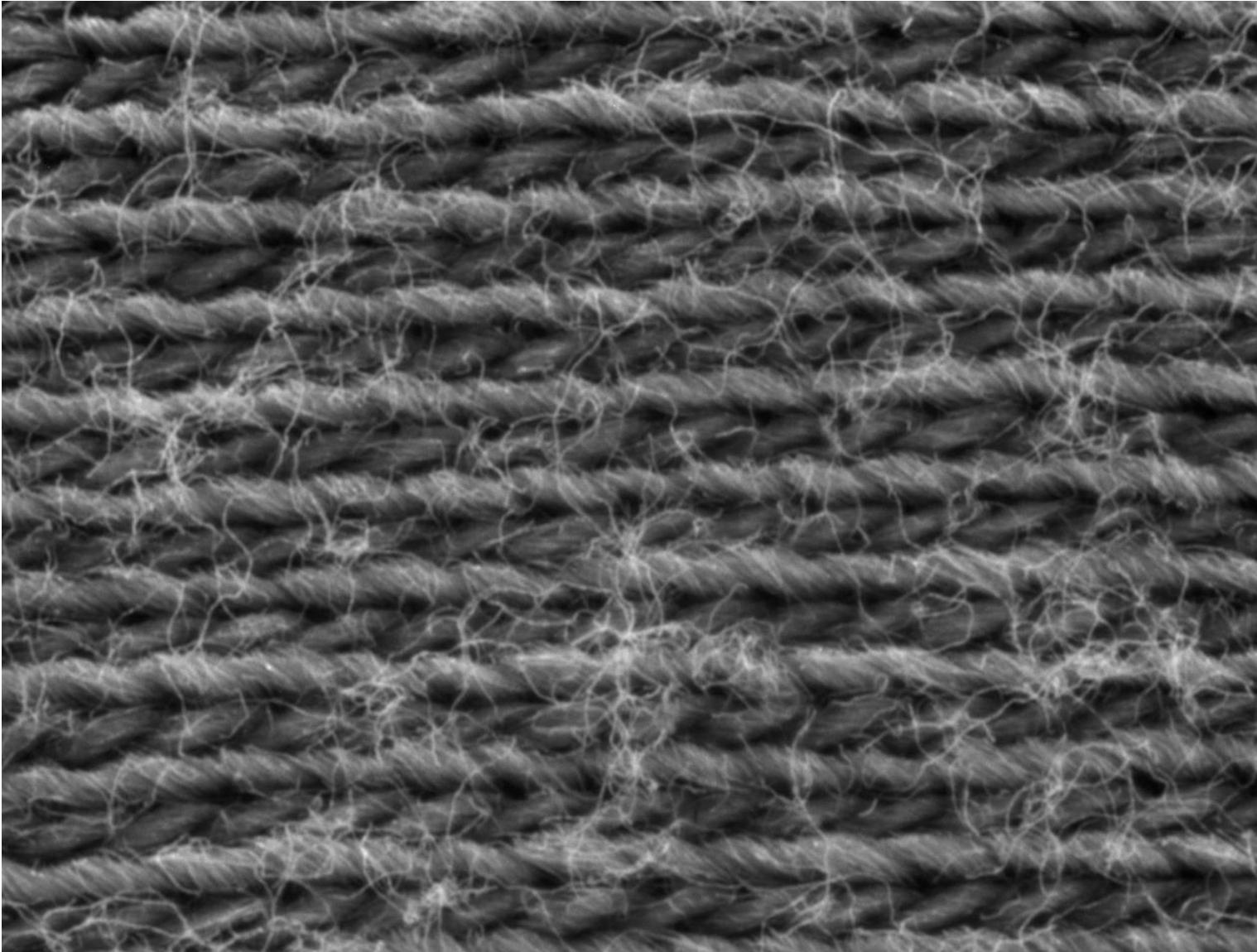


Used e.g. for measuring the efficacy of enzymes in detergents

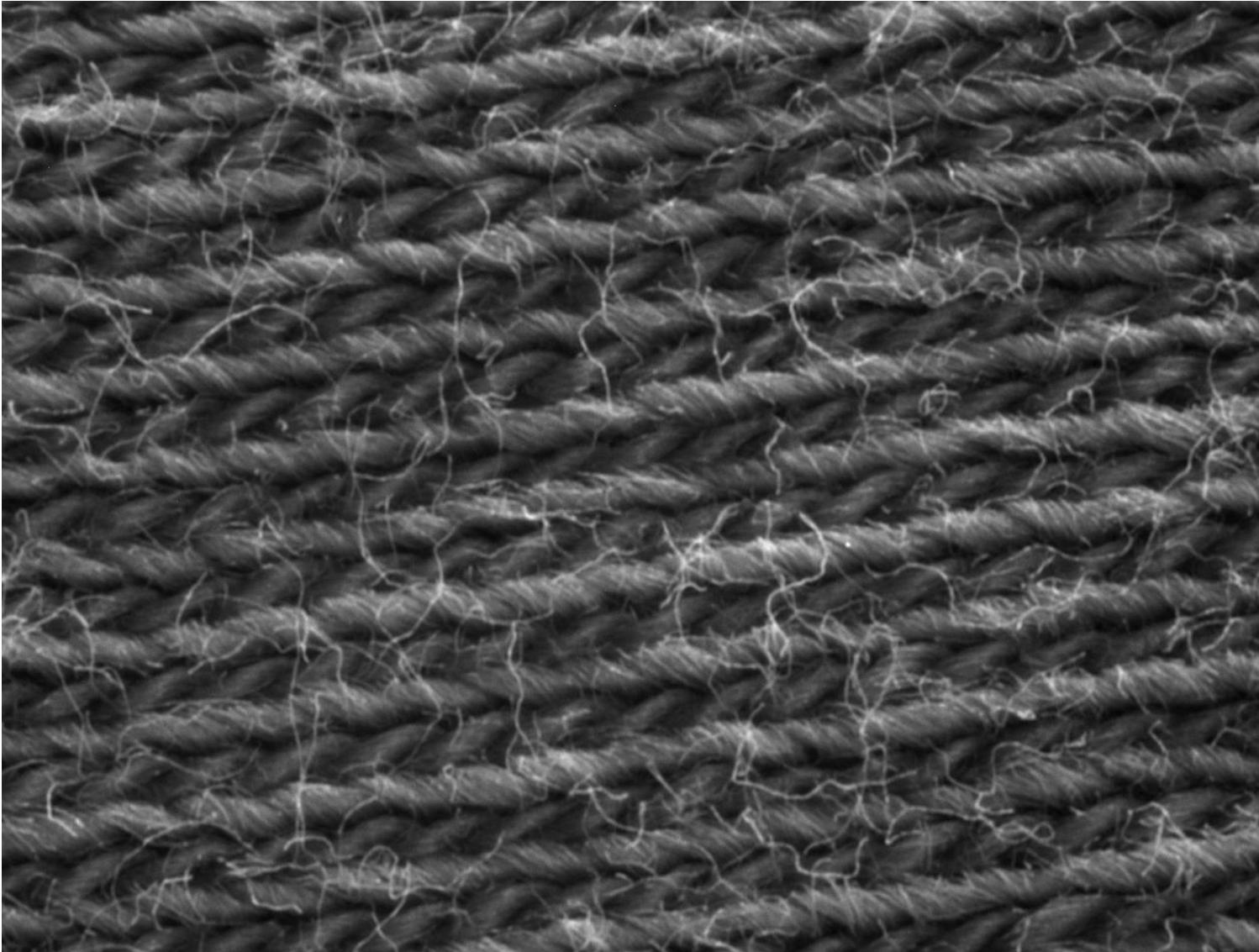


Correlation with human assessment
(scale can be linearized if desired)

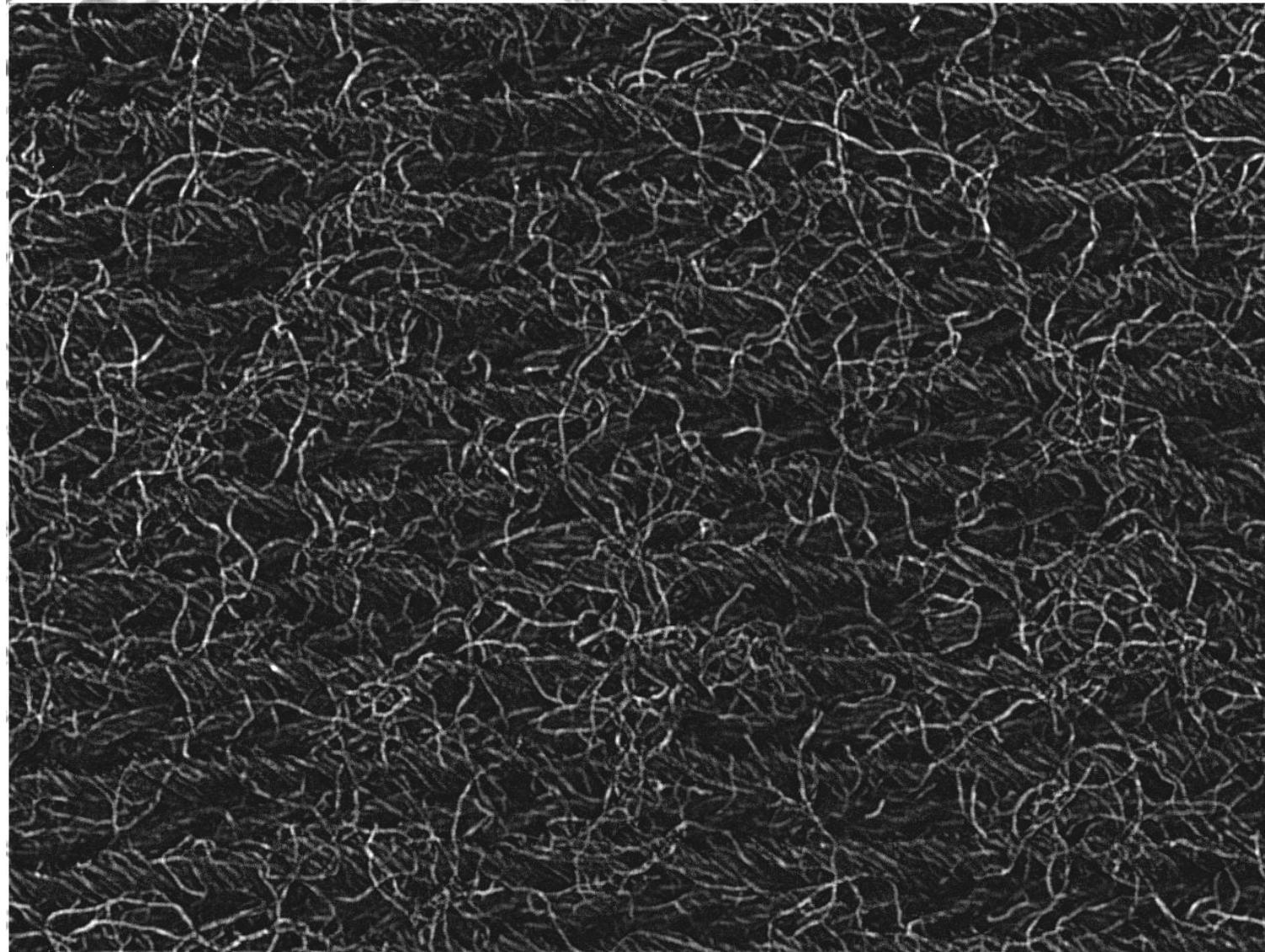
Babyblue (no enzyme)



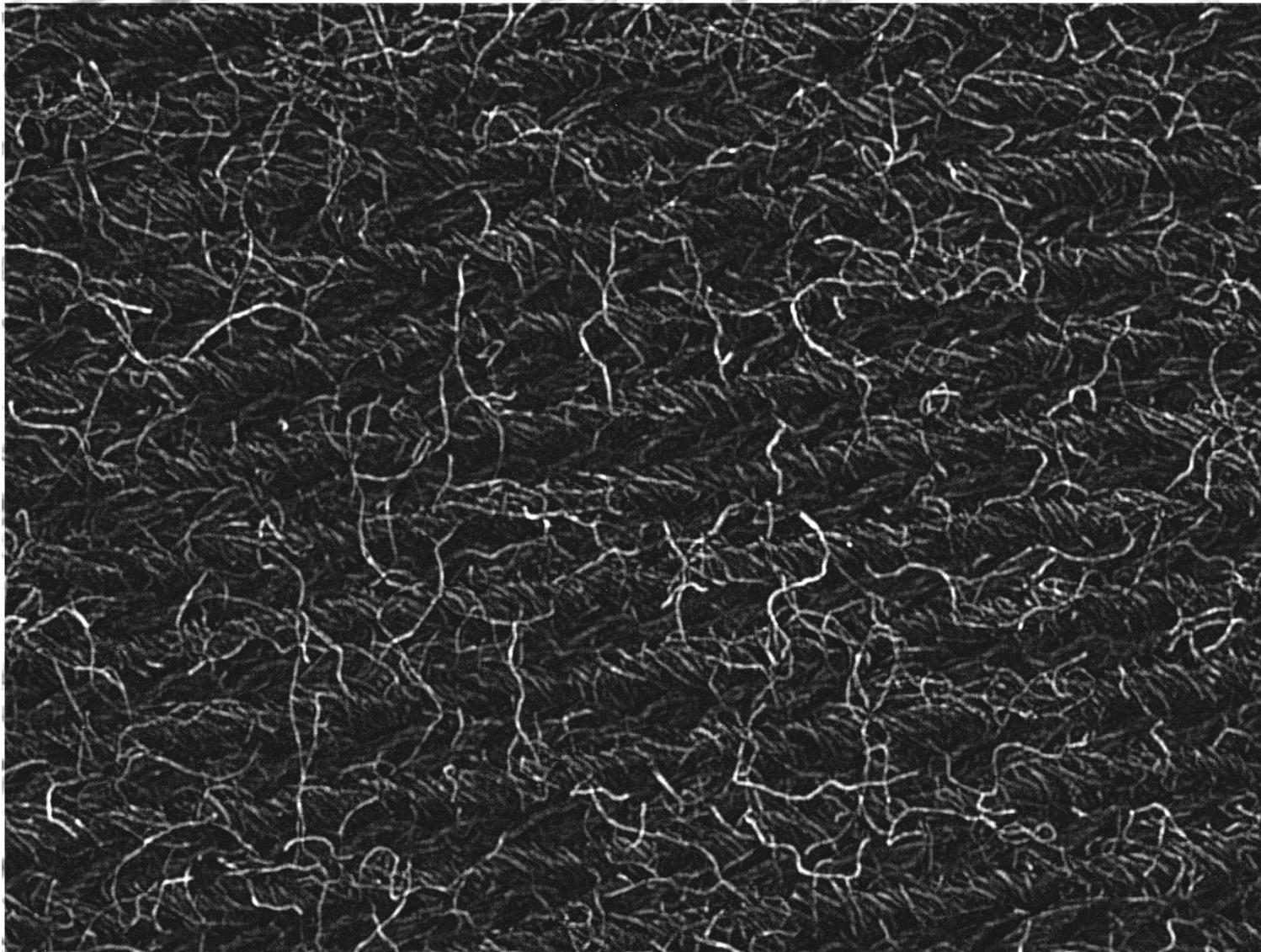
Babyblue (enzyme)



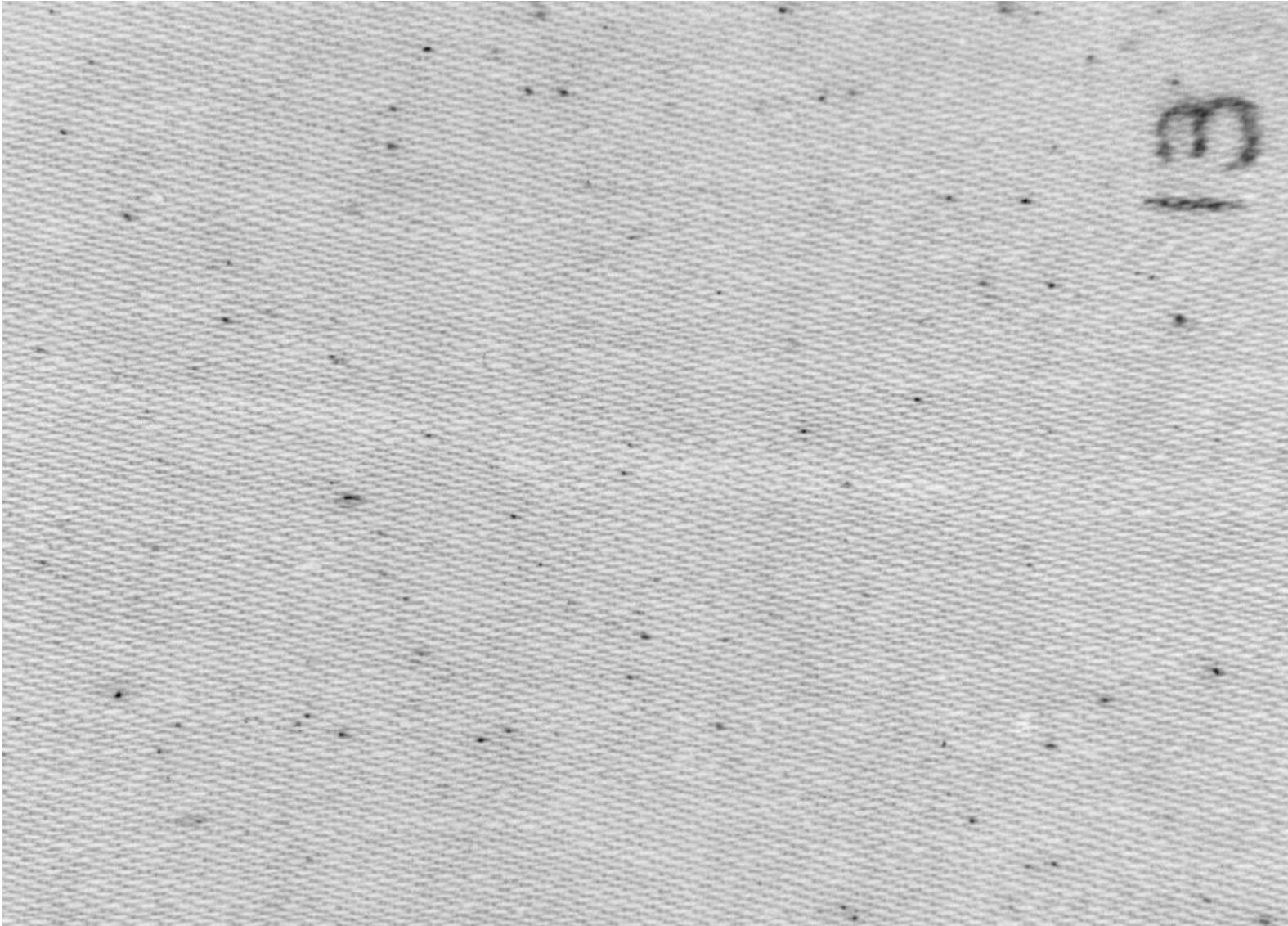
Fuzz enhanced (no enzyme)



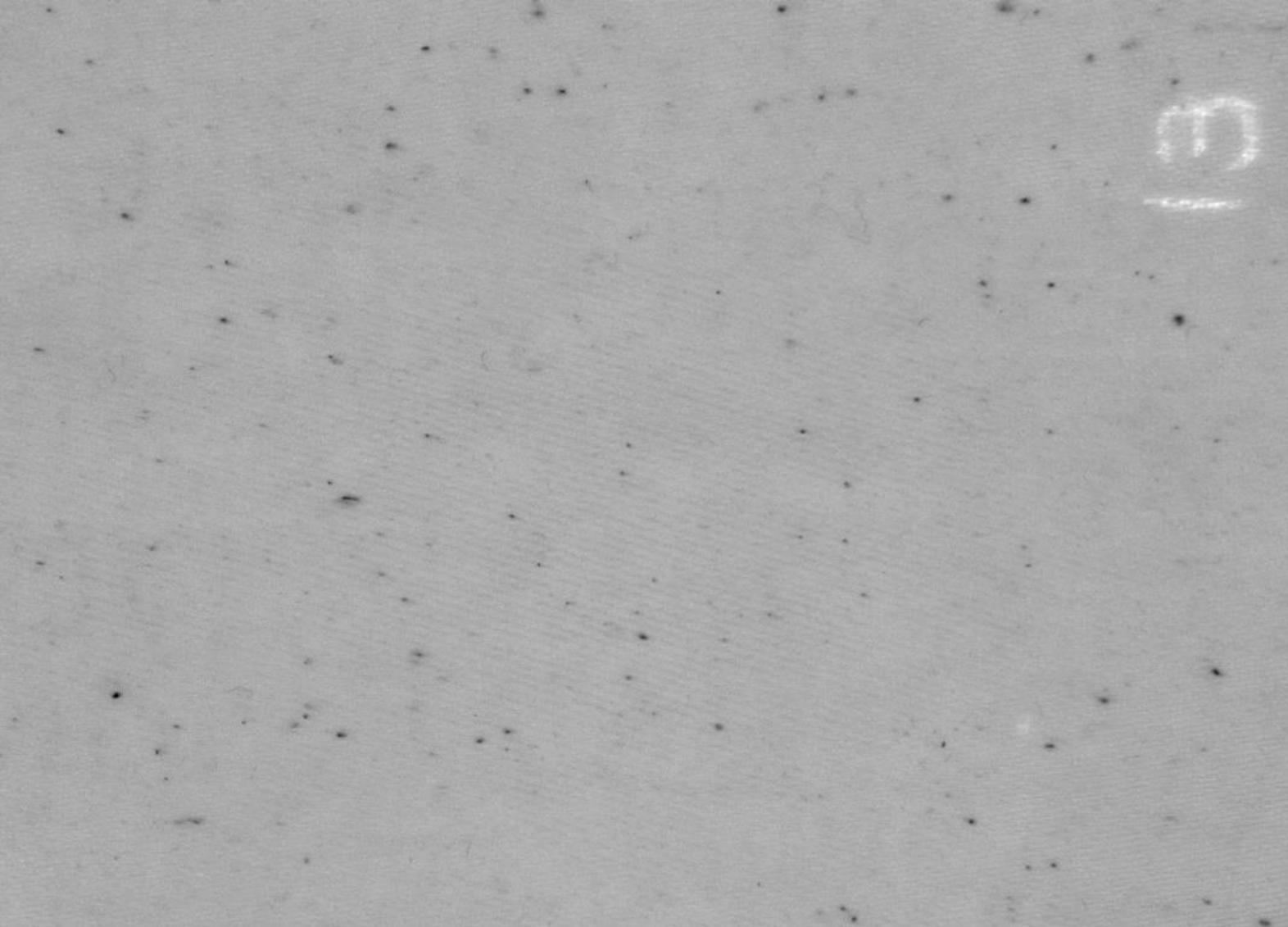
Fuzz enhanced (enzyme)



Seed coat fragments 435 nm



Seed coat fragments MAF2



Weave analysis

